

Table 1. Mean values and ANOVA coefficients of the independent variables and three dependent variables by borough (see variable labels, borough names and units in Table 4)

	PMR	SO	VM	CDN-NDG	RPP	VSM PE	AC	RDP-PAT	MHM	R ²	F-value
No (DA)	177	120	108	259	232	252	218	178	229		
SqrtDen	124	100	115	112	111	120	88	72	95	0.21	58
KM_CBD	3.62	4.64	2.57	6.39	7.12	8.51	11.54	19.29	9.54	0.87	1499
PARK_PCT	2.99	5.48	5.42	3.32	3.47	3.26	6.45	6.31	4.53	0.01	2.9
Factor1	-0.49	-0.18	-0.38	-0.04	-0.41	-0.34	0.21	1.84	-0.13	0.42	158.5
Factor2	0.01	0.03	1.36	0.30	-0.29	-0.27	-0.02	-0.14	-0.28	0.16	42.0
Factor3	-0.49	0.51	-0.58	0.17	0.02	0.30	0.06	-0.35	0.07	0.09	22.6
AgeMed	1914	1935	1929	1946	1942	1949	1960	1977	1951	0.43	163.9
Renter	72.82	71.82	77.39	71.94	73.39	72.99	58.09	32.80	67.90	0.28	87.4
MedInc	38.25	34.58	35.20	40.60	36.25	33.50	42.90	55.16	39.70	0.14	36.6
UniDeg	50.88	25.07	43.47	45.95	32.31	21.78	35.05	12.49	20.22	0.48	202.0
RecImmi	9.28	9.94	14.00	22.01	8.01	15.44	12.76	3.34	6.27	0.28	84.0
DA vegetation	16.74	26.10	16.30	34.10	24.08	18.26	37.88	38.17	28.97	0.32	104.7
Street vegetation	18.15	18.76	10.78	25.73	24.05	13.99	22.39	13.81	21.32	0.14	36.8
Backyard vegetation	18.39	30.60	14.62	42.99	30.32	26.68	47.44	41.44	34.86	0.27	83.3

Table 2. Statistic summary of the six dependent variables (Q3= third quintile, Q1=first quintile, unit=%)

	DA vegetation	DA trees/shrubs	DA lawn	Street trees/shrubs	Backyard vegetation	Backyard trees/shrubs
Max	85.72	64.83	61.96	51.57	81.95	48.59
Q3	36.29	15.00	21.05	11.07	47.51	20.99
Median	25.36	9.19	14.59	5.45	32.46	12.46
Q1	16.76	5.76	10.05	2.43	19.48	7.24
Min	0.00	0.00	0.00	0.00	0.00	0.00

Table 3. Principal component analysis on housing data (bold values are higher than 0.5 or lower than -0.5)

	Communality	Factor 1	Factor 2	Factor 3
Single detached house	0.64	0.80	-0.06	-0.01
Semi-detached house	0.63	0.78	-0.07	-0.08
Row house	0.13	0.36	0.06	-0.02
Duplex buildings	1.00	-0.11	-0.10	0.99
Buildings of 5 or more storeys	0.99	-0.09	0.98	-0.14
Buildings of less than 5 storeys	1.00	-0.65	-0.61	-0.46
Eigenvalue		1.82	1.35	1.21
Cumulative explained variance (%)		0.32	0.53	0.73

Table 4. Name, label and statistical summary of independent variables

Group	Variable	Label (unit)	Mean	Min	Max
Built Envi- ronment	SqrtDens	Inhabitants per km ² (square-rooted)	104.51	12.92	345.01
	Dist_CBD	Distance to CBD (km)	8.49	0.19	24.09
	Park_PCT	Proportion of DA occupied by parks (%)	4.41	0.00	80.30
	Factor1	1 st of PCA: detached houses	0.00	-0.63	4.83
	Factor2	2 nd of PCA: buildings of 5 or more storeys	0.00	-0.62	4.40
	Factor3	3 rd of PCA: duplex buildings	0.00	-0.97	4.47
	MedAge	Median year of residential buildings: neighbourhood age	1946	1874	2001
Socio- economic status	Renter	Percentage of renters (%)	66.55	0.00	100
	MedInc	Household median income (thousand \$)	39.67	9.16	179.32
	UniDeg	Percentage of univ. degree holders (%)	31.62	0.00	88.89
	RecImmi	Percentage of recent immigrants (%)	11.61	0.00	58.11
Borough*	PMR	Le Plateau-Mont-Royal (marked as 1 on Figure 1)			
	SO	Sud-Ouest (2)			
	CDNNDG	Côte-des-Neiges–Notre-Dame-de-Grâce (4)			
	RPP	Rosemont–La Petite-Patrie (5)			
	VSMPE	Villeray–Saint-Michel–Parc-Extension (6)			
	AC	Ahuntsic–Cartierville (7)			
	RDPPAP	Rivière-des-Prairies–Pointe-aux-Trembles (8)			
	MHM	Mercier–Hochelaga-Maisonneuve (9)			

Number of observations: 1 769. * Reference borough: Ville-Marie (3 on Fig. 1)

Table 5. Regression coefficients produced for tree cover, lawn cover and total vegetation in DA

	Variable	DA trees/shrubs		DA lawn		DA vegetation	
		β	Z-value	β	Z-value	B	Z-value
	<i>Constant</i>	-4697	-5.99***	-2759	-3.64***	-7378	-5.33***
Built factors	Dist_CBD	0.508	4.41***	0.687	6.25***	1.236	5.87***
	Park_PCT	0.090	9.57***	0.327	34.27***	0.430	28.60***
	SqrtDens	-0.007	-1.67	-0.061	-14.48***	-0.078	-10.80***
	AgeBuild	4.846	6.00***	2.825	3.62***	7.592	5.32***
	AgeBuild ²	-0.001	-6.00***	-0.001	-3.58***	-0.002	-5.30***
Socio-economic factors	FACTOR1	2.038	10.09***	1.366	6.77***	2.928	8.28***
	FACTOR2	-0.413	-3.17**	0.211	1.60	-0.128	-0.56
	FACTOR3	0.289	2.12*	-0.122	-0.90	0.140	0.59
	Renter	0.008	0.84	0.019	2.16*	0.020	1.27
	RecImmi	-0.073	-5.32***	-0.023	-1.68	-0.073	-3.10**
Borough's name ^a	UniDeg	0.079	7.55***	0.026	2.52*	0.111	6.08***
	MedInc	0.009	0.84	0.011	1.01	0.012	0.65
	PMR	-0.549	-0.63	1.021	1.22	-0.073	-0.05
	SO	2.034	1.99*	4.442	4.63***	6.162	3.31***
	CDN-NDG	8.201	8.40***	2.837	3.10**	10.457	5.93***
Spatial autoregression.	RPP	0.597	0.60	0.414	0.44	0.529	0.30
	VSMPE	-1.557	-1.47	-2.502	-2.50*	-4.324	-2.25*
	AC	5.302	4.17***	-0.189	-0.16	4.422	1.92
	RDP-PAP	-7.544	-3.78***	-1.100	-0.58	-8.171	-2.24*
	MHM	-0.426	-0.38	2.398	2.29*	1.660	0.83
	λ (SAR _{err})	0.522	19.12***	0.480	16.93***	0.561	21.59***
	<i>Pseudo R²</i>	0.673		0.769		0.756	

***, ** and *: significant at $p < 0.01$, $p < 0.05$ and $p < 0.1$. See table 4 for variable names.

Table 6. Regression coefficients produced for backyard trees/shrubs, backyard vegetation and street trees/shrubs

Backyard trees/shrubs				Backyard vegetation		Street trees/shrubs	
	Variable	β	Z-value	β	Z-value	β	Z-value
Built factors	<i>Constant</i>	-8251	-6.67***	-18953	-8.32***	-5832	-7.85***
	Dist_CBD	0.640	3.61***	1.527	4.88***	0.034	0.44
	Park_PCT	-0.017	-1.23	-0.036	-1.40	0.002	0.20
	SqrtDens	-0.033	-5.08***	-0.069	-5.82***	0.025	5.87***
	AgeBuild	8.546	6.71***	19.602	8.35***	6.029	7.87***
	AgeBuild ²	-0.002	-6.74***	-0.005	-8.38***	-0.002	-7.90***
	FACTOR1	5.379	16.83***	11.437	19.70***	0.909	4.49***
	FACTOR2	-0.997	-4.74***	-1.614	-4.22***	-0.733	-5.55***
Socioeconomic factors	FACTOR3	1.303	6.01***	2.913	7.43***	0.522	4.00***
	Renter	0.124	8.74***	0.295	11.31***	-0.007	-0.70
	RecImmi	-0.067	-3.07**	-0.100	-2.50**	-0.116	-7.97***
	UniDeg	0.038	2.32*	-0.013	-0.44	0.062	6.08***
Borough's name*	MedInc	0.003	0.17	-0.001	-0.02	0.002	0.15
	PMR	0.207	0.16	0.472	0.20	-0.910	-1.54
	SO	1.111	0.71	3.763	1.35	0.679	1.05
	CDN-NDG	11.965	8.04***	13.302	5.06***	2.488	3.89***
	RPP	1.290	0.86	1.712	0.64	0.816	1.29
	VSMPE	-1.042	-0.65	-4.368	-1.52	-0.437	-0.65
	AC	9.638	4.99***	10.892	3.17**	1.589	2.00*
	RDP-PAP	-11.120	-3.66***	-13.353	-2.48*	-0.893	-0.73
Spatial autoregression	MHM	-0.912	-0.54	1.643	0.55	0.689	0.98
	λ (SAR _{err})	0.492	17.40***	0.470	16.24***		
	ρ (SAR _{lag})					0.541	22.64***
<i>Pseudo R</i> ²				0.621		0.549	

***, ** and *: significant at $p < 0.01$, $p < 0.05$ and $p < 0.1$. See table 4 for variable names.